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✓ U. S. AGRICULTURAL RESEARCH SERVICE //

- 3 RESEARCH PROPOSALS WORTHY OF CONSIDERATION IN THE  
EVENT A CRASH PROGRAM IS TO BE UNDERTAKEN TO HELP  
DISPOSE OF AGRICULTURAL SURPLUSES. //

Title

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1. Production of higher quality protein supplements by fermenting cereal grains to produce microbial protein concentrates having high content of the essential amino acids, and development of low-cost processes for making highly desirable feedstuffs from barley .
2. Incorporation of starch into paper and paper products as an extender to meet the nation's expanding pulp requirements .
3. Increased industrial consumption of starch from cereal grains by conversion to oxystarch for production of new industrial products, chemical intermediates, and superior modified starches .
4. Production of natural and synthetic rubbers from grain by fermentation and various chemical processing methods
5. Development and testing of methods of production of choice lambs at weaning in Southeastern States to utilize surplus crop acreage
6. Research on cotton and wool to develop (1) radically new machinery and methods for efficient conversion of cotton lint into new and improved fabrics for new specific end uses and markets; (2) new instruments for measuring physical properties of cotton fibers, yarns, and fabrics; (3) chemical treatments which will increase the desirable qualities of cotton products; (4) new textile and non-textile uses for cotton lint including improved non-woven cotton fabrics and improved cotton-reinforced plastic laminates, and (5) expanded markets for wool by improvement of wool qualities through chemical modification; new wool products with enhanced attractiveness and diverse uses, and more efficient manufacturing processes



Title

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7. Development of industrially practicable processes for pulping and use of fibrous plants as replacement crops for grains to extend our domestic sources of newsprint and other paper products, cordage, dissolving pulp for fiber and film manufacture, and building board
8. Production and processing of safflower, flaxseed, and other crops for oil and its chemical conversion into industrial chemicals competitive with synthetic products for resins, protective coatings, elastomers, and lubricants
9. Expansion of research on the development of stable instant dried whole milk, and of low-fat dried milk, that can be readily reconstituted to beverage milk of excellent palatability and high nutritive value
10. Development of methods of raising disease-free poultry which could be processed for extensive export markets and which would provide for utilization of surplus grains as feed
11. Development of potential new farm crops for drug or specialty purposes, such as production of vegetable tannin, low-cost rotenone, cortisone-type drugs and hormones, wax for chewing gum, wax and polish industries, and analgesic and circulatory drugs
12. Research to expand the markets for hides and leathers by development of (1) lower cost tanning processes; (2) washable leathers for use in garments; and (3) leathers with improved resistance to wear and with qualities suitable for new uses
13. Improvement of methods for meat tenderization, based on expanded studies of the basic physics and chemistry of meat and the engineering development of new techniques, in order to increase the utilization of lower grades of beef
14. Reduction in processing cost of animal products through the development of rapid, semi-continuous, mechano-chemical manufacturing methods







Title

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15. Reduction of the cost of rice and rice products by developing more efficient methods for drying, milling, and processing rice, by lowering the cost of manufacturing rice products, and by increasing the return from low-quality rice and byproducts, in order to improve the position of domestic rice in world markets
16. Determination of the composition of corn, wheat, sorghum, and other small grains and the properties of the constituents to provide the necessary basis for development of the most efficient utilization and improved processing of these grains for industrial and feed uses
17. Incorporation of wheat grain and wheat flour as binder and filler in hardboard and boxboard utilizing the adhesive properties of both grain and grain products as found or improved by chemical modification
18. Production and development of high-amylose corn as a replacement crop for common corn through research on processing methods for the separation of starch from high-amylose corn and development and evaluation of the starch for industrial uses





